Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-260

Guided Multiple Launch Rocket System/Guided Multiple Launch Rocket System Alternative Warhead (GMLRS/GMLRS AW)

As of FY 2011 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President’s Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

Guided Multiple Launch Rocket System (GMLRS)

DoD Component

Army

Responsible Office

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References

SAR Baseline (Production Estimate)

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated May 30, 2003

Approved APB

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated June 27, 2007

Mission and Description

The mission of the Guided Multiple Launch Rocket System (GMLRS) is to attack/neutralize/suppress/destroy targets using indirect recision fires. GMLRS provides Field Artillery units with medium and long-range (up to 70+ Km) fires while supporting brigade, division, corps, army, theater, Joint/Coalition Forces and Marine Air-Ground Task Forces (MAGTF) in full, limited or expeditionary operations. GMLRS rocket is a solid propellant artillery rocket deployed from the M270A1 and the High Mobility Artillery Rocket System (HIMARS) mobile launch vehicles. GMLRS uses an Inertial Measuring Unit (IMU) with Global Positioning System (GPS) assistance to guide the rocket to a specific point to deliver effects on a target. GMLRS is transported and fired in a Rocket Pod Container (RPC) that consists of six rockets. GMLRS is currently designed to carry two warhead payload variants, GMLRS Dual Purpose Improved Conventional Munitions (GMLRS DPICM) and GMLRS Unitary (GMLRS-U). A third variant of the GMLRS, the Alternative Warhead (AW), is currently in the Technology Development Phase. The GMLRS DPICM was an international cooperative development program with five nations (United States, United Kingdom, France, Germany, and Italy).

GMLRS DPICM

The GMLRS DPICM has a range of over 70 Km, contains 404 DPICM units, and is used to provide precision fires on area targets including personnel and thinly armored vehicles.

GMLRS Unitary

The GMLRS Unitary (GMLRS-U) is equipped with a 200-pound unitary high explosive warhead, has a range up to 70+ Km, and is effective against multiple targets. Accuracy of the rocket has been demonstrated to be significantly less than 5 meters. While extremely accurate, the single warhead also limits collateral damage to areas surrounding the designated target.

GMLRS AW

The GMLRS AW is currently designed to replace the DPICM, provide similar effects at comparable range, and eliminate the probability of Unexploded Ordnances (UXOs).

Executive Summary

The Guided Multiple Launch Rocket System (GMLRS) Dual Purpose Improved Conventional Munition (DPICM) program completed its last production on November 5, 2009. GMLRS Unitary's System Development and Demonstration (SDD) contract period of performance concluded in January 2009, and its Initial Operational Capability (IOC) was accomplished 1st quarter FY09 followed by a Full Rate Production (FRP) decision in December 2008.

A GMLRS Alternative Warhead (AW) Directed Requirement Memo was signed by the Deputy Chief of Staff on June 25, 2008, validating the requirement for the GMLRS AW. The GMLRS AW Configuration Steering Board (CSB) met on October 22, 2008, to consider a GMLRS AW effort to replace the current GMLRS DPICM capability. The GMLRS AW project received validation of the current GMLRS Analysis of Alternatives (AoA) from the Principal Deputy Director for Program Assessment and Evaluation on July 31, 2009. On September 11, 2009, the Army Acquisition Executive (AAE) granted GMLRS approval to enter into the Technology Development Phase/Milestone A. The GMLRS AW rocket will be a modification to the current GMLRS DPICM rocket, phased out of production on November 5, 2009, in response to the DoD Policy on Cluster Munitions and Unintended Harm to Civilians. As with the previous GMLRS rocket development approach, the GMLRS AW rocket will leverage technological opportunities from those demonstrated in the GMLRS DPICM and Unitary development efforts as well as current efforts from other programs. Additionally, the GMLRS AW variant will make full use of existing common hardware, software, interfaces, and manufacturing facilities. It will be supported by existing infrastructure, and fired from existing M270A1 Missile Launch Rocket System (MLRS) and M142 High Mobility Artillery Rocket System (HIMARS) launchers as well as the European Fire Control System (EFCS)-equipped MLRS launchers.

GMLRS AW is currently in the Technology Development Phase whereby three competing warhead contractors were awarded contracts on September 18, 2009, to conduct ground and flight tests demonstrations. In January 2011 the three competing contractors will submit updated proposals to support final Source Selection down-select to one contractor's design for inclusion in the Engineering and Manufacturing Design (EMD) phase. The GMLRS hardware will maintain approximately 80% commonality, irrelevant of which warhead is integrated into the systems (DPICM, Unitary, or AW). All of the competing concepts for the AW will satisfy the Unexploded Ordnance (UXO) requirements as defined in the DoD Policy on Cluster Munitions, dated June 19, 2008.

The Memorandum of Understanding (MOU) Partner nations continue to procure GMLRS rockets from the US production line. The United Kingdom (UK) has procured 2412 rockets, of which over 700+ have been successfully fired in a combat environment to support US Forces. Germany has procured 324 rockets, under GMLRS Full Rate Production (FRP) I, III and IV contracts. GMLRS rockets have been procured under FMS cases with the following countries: United Arab Emirates (UAE), 780 DPICM and 780 Unitary; Singapore, 108 Unitary rockets; Bahrain, 36 Unitary rockets; and Japan, 180 Unitary rockets.

The GMLRS class Justification & Approval (J&A) was approved on February 18, 2010, for the procurement of continued full rate production of the GMLRS Unitary for FY 2010 through FY 2012. The approved J&A directed the Program Management Office (PMO) not to award the FRP-6 or FRP-7 contracts until the successful completion of annual in process reviews to the Deputy Assistant Secretary of the Army for Procurement (SAAL-ZP), the Deputy for Acquisition and Systems Management (SAAL-ZS), and the Deputy for Acquisition Policy and Logistics (SAAL-ZL), documenting the PMO's progress toward awarding future GMLRS requirements on a competitive basis. The PMO was also directed to provide a "Road to Competition" business case analysis documenting actions taken to validate subcontractor claims to proprietary data rights, and present a plan for competition including requirements for acquisition and validation of data, and impacts on program cost and schedule. The briefing to the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA (ALT)) will occur in May 2010; coordination is ongoing with Department of the Army System Coordinator (DASC) and ASA (ALT) in preparation for this briefing.

There are no significant software issues with the program at this time.

Threshold Breaches

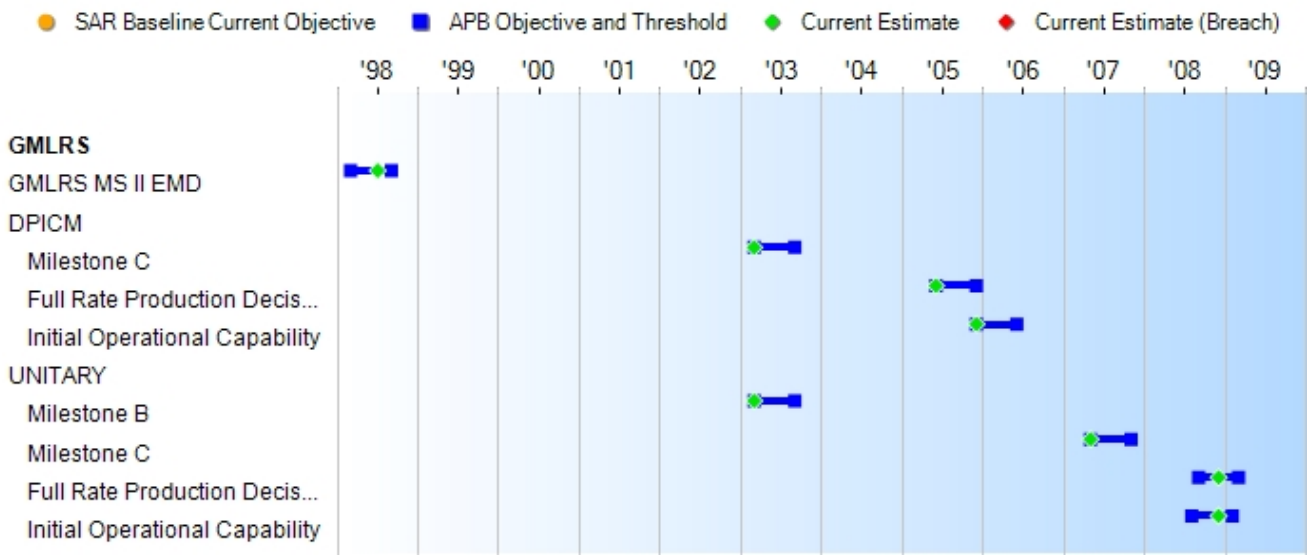
APB Breaches		
Schedule		☐
Performance		☑
Cost	RDT&E	☑
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
O&S Cost		☑
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Explanation of Breach

The RDT&E Threshold Breach reflected in this section resulted from adding Alternative Warhead Program RDT&E dollars and quantities, which are not included in the current GMLRS APB dated June 27, 2007. A Program Deviation Report has been prepared and it is anticipated that a new APB will be updated at the GMLRS AW Milestone B Decision Review, currently scheduled for 4th quarter FY11.

Schedule



Schedule Events					
Events	**SAR Baseline Production Estimate**	**Current APB Production Objective/Threshold**		**Current Estimate**	
GMLRS MS II EMD	Mar 1998	Mar 1998	Sep 1998	Jul 1998	
DPICM					
Milestone C	Mar 2003	Mar 2003	Sep 2003	Mar 2003	
Full Rate Production Decision	Mar 2005	Jun 2005	Dec 2005	Jun 2005	
Initial Operational Capability	Nov 2006	Dec 2005	Jun 2006	Dec 2005	
UNITARY					
Milestone B	Mar 2003	Mar 2003	Sep 2003	Mar 2003	
Milestone C	Sep 2006	May 2007	Nov 2007	May 2007	
Full Rate Production Decision	Sep 2008	Sep 2008	Mar 2009	Dec 2008	(Ch-1)
Initial Operational Capability	Mar 2008	Aug 2008	Feb 2009	Dec 2008	(Ch-1)

Change Explanations

(Ch-1) Full Rate Production Decision changed from March 2009 to December 2008 and Initial Operational Capability (IOC) changed from September 2008 to December 2008 to reflect the actual dates of the Full Rate Production Decision and IOC respectively.

Acronyms and Abbreviations

DPICM - Dual Purpose Improved Conventional Munition
EMD - Engineering and Manufacturing Development
MS - Milestone

Performance

Performance Characteristics					
SAR Baseline Production Estimate	**Current APB Production Objective/Threshold**		**Demonstrated Performance**	**Current Estimate**	
DPICM					
Range					
Max (Km)					
70	70	60	73	70	
Min (Km)					
10	10	15	15	10	
Effectiveness					
(Expected Fractional Damage [EFD])					
30%	30%	30%	30%+	30%+	
Reliability					
.95	.95	.92	.875	.92	
Hazardous Dud Rate					
0	0%	2%/4%	1.71%/3.75%	1.71%/3.75%	
UNITARY					
Range					
Max (Km)					
70	70	60	70+	70+	(Ch-1)
Min (Km)					
10	10	15	15	15	(Ch-1)
Effectiveness					
Reliability					
.95	.95	.92	.92	.92	

Requirements Reference

Operational Requirements Document (ORD)(of which DPICM is a part) dated November 3, 2003

Change Explanations

(Ch-1) GMLRS Unitary Maximum/Minimum Range (Current Estimate) changed from 70 Km/10 Km to 70+ Km/15 Km and GMLRS Unitary Maximum/Minimum Range (Demonstrated Performance) changed from To Be Determined (TBD)/TBD to 70+ Km/15 Km due to testing and demonstration results.

Acronyms and Abbreviations

DPICM - Dual Purpose Improved Conventional Munition
Max Km - Maximum Kilometers
Min Km - Minimum Kilometers

Track to Budget

RDT&E

Appn	BA	PE
Army 2040	07	0673778A

Project	Name
784	GMLRS
78G	GMLRS AW

Procurement

Appn	BA	PE
Army 2032	07	

Line Item	Name
C65404	GMLRS (Army)
C65406	GMLRS (Army)

Notes

Program Element (PE) numbers do not exist for GMLRS Procurement Line Items. Only ICN and Budget Activity numbers are portrayed.

Project Code 78G was initiated in FY10 for Alternative Warhead (AW). The funding for this project code was reprogrammed from GMLRS MIPA.

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2003 $M			BY 2003 $M	TY $M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	485.4	611.7	672.9	742.6[1]	500.5	675.3	833.5
Procurement	9294.8	3966.7	4363.4	4156.3	11348.4	5170.4	5225.4
Flyaway	--	--	--	4128.4	--	--	5193.4
Recurring	--	--	--	4077.9	--	--	5137.2
Non Recurring	--	--	--	50.5	--	--	56.2
Support	--	--	--	27.9	--	--	32.0
Other Support	--	--	--	26.8	--	--	30.7
Initial Spares	--	--	--	1.1	--	--	1.3
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	9780.2	4578.4	N/A	4898.9	11848.9	5845.7	6058.9

[1] *APB Breach*

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	235	235	322
Procurement	140004	43560	43560
Total	140239	43795	43882

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2011 President's Budget / December 2009 SAR (TY$ M)									
Appropriation	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
RDT&E	545.6	21.0	44.6	46.2	34.2	42.3	41.6	58.0	833.5
Procurement	1170.4	353.3	291.0	314.8	326.8	337.8	347.1	2084.2	5225.4
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	1716.0	374.3	335.6	361.0	361.0	380.1	388.7	2142.2	6058.9
PB 2009 Total	1608.7	325.2	344.0	371.1	372.1	393.1	403.2	2190.9	6008.3
Delta	107.3	49.1	-8.4	-10.1	-11.1	-13.0	-14.5	-48.7	50.6

Funding Notes

The confidence level used in establishing the cost estimate for GMLRS is 80% based on actual data from SDD, FRP and LRIP contracts.

Quantity Summary										
FY 2011 President's Budget / December 2009 SAR (TY$ M)										
Quantity	Undistributed	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
Development	322	0	0	0	0	0	0	0	0	322
Production	0	9084	3228	2592	2802	2892	2880	2946	17136	43560
PB 2011 Total	322	9084	3228	2592	2802	2892	2880	2946	17136	43882
PB 2009 Total	235	7788	2706	3018	3276	3264	3282	3294	16932	43795
Delta	87	1296	522	-426	-474	-372	-402	-348	204	87

Cost and Funding

Annual Funding By Appropriation

Annual Funding 2040 | RDT&E | Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1998	--	--	--	--	--	--	13.6
1999	--	--	--	--	--	--	17.7
2000	--	--	--	--	--	--	26.8
2001	--	--	--	--	--	--	16.8
2002	--	--	--	--	--	--	45.6
2003	--	--	--	--	--	--	59.4
2004	--	--	--	--	--	--	54.4
2005	--	--	--	--	--	--	90.0
2006	--	--	--	--	--	--	98.3
2007	--	--	--	--	--	--	43.2
2008	--	--	--	--	--	--	33.5
2009	--	--	--	--	--	--	46.3
2010	--	--	--	--	--	--	21.0
2011	--	--	--	--	--	--	44.6
2012	--	--	--	--	--	--	46.2
2013	--	--	--	--	--	--	34.2
2014	--	--	--	--	--	--	42.3
2015	--	--	--	--	--	--	41.6
2016	--	--	--	--	--	--	12.5
2017	--	--	--	--	--	--	6.7
2018	--	--	--	--	--	--	12.7
2019	--	--	--	--	--	--	12.7
2020	--	--	--	--	--	--	6.9
2021	--	--	--	--	--	--	3.2
2022	--	--	--	--	--	--	3.3
Subtotal	322	--	--	--	--	--	833.5

Annual Funding 2040 | RDT&E | Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2003 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1998	--	--	--	--	--	--	14.3
1999	--	--	--	--	--	--	18.4
2000	--	--	--	--	--	--	27.4
2001	--	--	--	--	--	--	17.0
2002	--	--	--	--	--	--	45.6
2003	--	--	--	--	--	--	58.3
2004	--	--	--	--	--	--	52.1
2005	--	--	--	--	--	--	83.8
2006	--	--	--	--	--	--	89.0
2007	--	--	--	--	--	--	38.2
2008	--	--	--	--	--	--	29.1
2009	--	--	--	--	--	--	39.7
2010	--	--	--	--	--	--	17.8
2011	--	--	--	--	--	--	37.2
2012	--	--	--	--	--	--	38.0
2013	--	--	--	--	--	--	27.6
2014	--	--	--	--	--	--	33.6
2015	--	--	--	--	--	--	32.5
2016	--	--	--	--	--	--	9.6
2017	--	--	--	--	--	--	5.1
2018	--	--	--	--	--	--	9.4
2019	--	--	--	--	--	--	9.3
2020	--	--	--	--	--	--	5.0
2021	--	--	--	--	--	--	2.3
2022	--	--	--	--	--	--	2.3
Subtotal	322	--	--	--	--	--	742.6

Annual Funding 2032 | Procurement | Missile Procurement, Army							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	822	110.4	--	13.1	123.5	6.6	130.1
2004	683	97.2	--	7.0	104.2	4.7	108.9
2005	954	97.2	--	3.7	100.9	11.0	111.9
2006	984	119.7	--	0.3	120.0	1.5	121.5
2007	925	123.4	--	0.9	124.3	0.7	125.0
2008	2070	241.8	--	20.8	262.6	1.1	263.7
2009	2646	300.1	--	8.8	308.9	0.4	309.3
2010	3228	352.9	--	--	352.9	0.4	353.3
2011	2592	290.6	--	--	290.6	0.4	291.0
2012	2802	314.4	--	--	314.4	0.4	314.8
2013	2892	326.4	--	--	326.4	0.4	326.8
2014	2880	335.7	--	1.6	337.3	0.5	337.8
2015	2946	346.7	--	--	346.7	0.4	347.1
2016	3486	399.5	--	--	399.5	0.5	400.0
2017	3480	409.0	--	--	409.0	0.5	409.5
2018	3606	418.8	--	--	418.8	0.5	419.3
2019	3672	428.8	--	--	428.8	0.5	429.3
2020	2892	357.2	--	--	357.2	0.5	357.7
2021	--	--	38.3	--	38.3	0.5	38.8
2022	--	--	29.1	--	29.1	0.5	29.6
Subtotal	43560	5069.8	67.4	56.2	5193.4	32.0	5225.4

Annual Funding 2032 | Procurement | Missile Procurement, Army							
Fiscal Year	Quantity	BY 2003 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2003	822	106.1	--	12.6	118.7	6.3	125.0
2004	683	90.9	--	6.6	97.5	4.4	101.9
2005	954	88.4	--	3.4	91.8	10.0	101.8
2006	984	106.6	--	0.3	106.9	1.3	108.2
2007	925	107.8	--	0.8	108.6	0.6	109.2
2008	2070	208.1	--	18.0	226.1	0.9	227.0
2009	2646	255.7	--	7.6	263.3	0.3	263.6
2010	3228	296.9	--	--	296.9	0.3	297.2
2011	2592	240.4	--	--	240.4	0.3	240.7
2012	2802	255.7	--	--	255.7	0.3	256.0
2013	2892	261.0	--	--	261.0	0.4	261.4
2014	2880	264.0	--	1.2	265.2	0.4	265.6
2015	2946	268.1	--	--	268.1	0.3	268.4
2016	3486	303.8	--	--	303.8	0.3	304.1
2017	3480	305.8	--	--	305.8	0.3	306.1
2018	3606	307.9	--	--	307.9	0.3	308.2
2019	3672	310.0	--	--	310.0	0.3	310.3
2020	2892	253.9	--	--	253.9	0.3	254.2
2021	--	--	26.8	--	26.8	0.3	27.1
2022	--	--	20.0	--	20.0	0.3	20.3
Subtotal	43560	4031.1	46.8	50.5	4128.4	27.9	4156.3

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	3/24/2003	5/2/2007
Approved Quantity	13998	17478
Reference	ADM	ADM
Start Year	2003	2007
End Year	2005	2008

At the GMLRS Dual Purpose Improved Conventional Munition (DPICM) Milestone C, in the March 24, 2003, Acquisition Decision Memorandum (ADM), the Army Acquisition Executive (AAE) authorized a Low Rate Initial Production (LRIP) quantity not to exceed 13,998 rockets. This LRIP quantity was based on the Army Acquisition Objective (AAO) of 140,004. The actual GMLRS DPICM LRIP quantity was 2,459, of which 498 were GMLRS Unitary Urgent Material Release units.

In the May 7, 2006, Memorandum, the Director, Force Development, changed the AAO to an Army Procurement Objective (APO) of 43,560 rockets. At the GMLRS Unitary Milestone C, in the May 2, 2007, ADM, the AAE authorized a GMLRS Unitary LRIP quantity not to exceed 3,480 (which was based on 34,848, the total expected Procurement quantity for the GMLRS Unitary variant). The actual GMLRS Unitary LRIP quantity was 2,484 units.

The value in the table above for total LRIP approved quantity (17, 478) is the summation of 13,998 GMLRS DPICM rockets plus 3,480 GMLRS Unitary rockets.

Therefore, the current GMLRS DPICM and Unitary LRIP quantities do not exceed the 10% guideline as established in Title 10 US Code, Section 2400, Federal Acquisition Streamlining Act. The authorization for GMLRS AW LRIP quantity is also expected to be within these guidelines and will be made at GMLRS AW Milestone B, planned for 4QFY11.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Description
Japan	2/13/2009	180	24.7	Unitary rockets.
Bahrain	12/5/2008	36	6.0	Unitary rockets.
Singapore	12/5/2007	108	15.0	Unitary rockets.
United Arab Emirates	8/1/2007	1560	212.5	DPICM and Unitary rockets.

Notes

The Memorandum of Understanding (MOU) Partner nations continue to procure Guided Multiple Launch Rocket System (GMLRS) rockets from the US production line.

United Kingdom, Germany and France are Cooperative Partners and not FMS Customers. The United Kingdom (UK) has procured 2412 rockets, of which over 700+ have been successfully fired in a combat environment to support US Forces. Germany has procured 324 rockets under GMLRS Full Rate Production (FRP) I, III, and IV contracts. France has procured 12 rockets under GMLRS Full Rate Production (FRP) IV contract.

Nuclear Costs

None

Unit Cost

Unit Cost Report

Item	BY 2003 $M Current UCR Baseline (Jun 2007 APB)	BY 2003 $M Current Estimate (Dec 2009 SAR)	% Change
Program Acquisition Unit Cost			
Cost	4578.4	4898.9	
Quantity	43795	43882	
Unit Cost	0.105	0.112	+6.67
Average Procurement Unit Cost			
Cost	3966.7	4156.3	
Quantity	43560	43560	
Unit Cost	0.091	0.095	+4.40

Item	BY 2003 $M Revised Original UCR Baseline (Jun 2007 APB)	BY 2003 $M Current Estimate (Dec 2009 SAR)	% Change
Program Acquisition Unit Cost			
Cost	4578.4	4898.9	
Quantity	43795	43882	
Unit Cost	0.105	0.112	+6.67
Average Procurement Unit Cost			
Cost	3966.7	4156.3	
Quantity	43560	43560	
Unit Cost	0.091	0.095	+4.40

In accordance with the April 26, 2007 Acquisition Decision Memorandum, separate APUCs and PAUCs have been prepared for all Guided Multiple Launch Rocket System (GMLRS) configurations. The GMLRS hardware will maintain approximately 80% commonality, irrelevant of which warhead is integrated into the systems (DPICM, Unitary, or Alternative Warhead [AW]). All of the competing concepts for the AW will satisfy the Unexploded Ordnance (UXO) requirements as defined in the DoD Policy on Cluster Munitions and Unintended Harm to Civilians, dated June 19, 2008. Consequently, unit costs of each variant will directly affect the APUCs and PAUCs of the other. The split-out APUC and PAUC of the GMLRS variants are as follows:

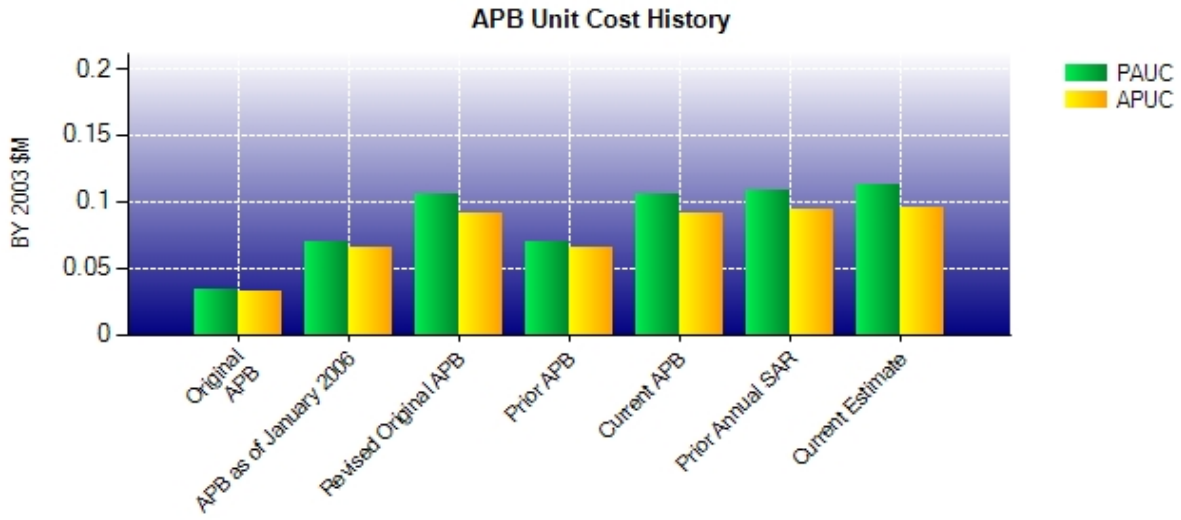
DPICM APUC ($.134M [BY 03$]; Qty = 2472)
UNITARY APUC ($ .093M [BY 03$]; Qty = 34848)
AW APUC ($.094M [BY 03$]; Qty = 6240)

DPICM PAUC ($ .191M [BY 03$]; Qty = 2565)
UNITARY PAUC ($ .101M [BY 03$]; Qty = 34990)
AW PAUC ($ .124M [BY 03$]; Qty = 6327)

Because all GMLRS variants benefit from the RDTE future system enhancements (Insensitive Munitions, obsolescence,

cost reduction initiatives), an artificial pro-ration would have to be made to include them in the split-out Program Acquisition Unit Costs (PAUC) above. Therefore, the split-out PAUCs above exclude the funding for these future enhancements. However, these dollars are included in the composite PAUC shown in the Unit Cost section.

Unit Cost History



Item	Date	BY 2003 $M		TY $M	
		PAUC	APUC	PAUC	APUC
Original APB	Mar 1998	0.034	0.032	0.039	0.037
APB as of January 2006	May 2003	0.070	0.066	0.084	0.081
Revised Original APB	Jun 2007	0.105	0.091	0.133	0.119
Prior APB	May 2003	0.070	0.066	0.084	0.081
Current APB	Jun 2007	0.105	0.091	0.133	0.119
Prior Annual SAR	Dec 2007	0.108	0.094	0.137	0.123
Current Estimate	Dec 2009	0.112	0.095	0.138	0.120

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY $M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.039	-0.003	0.001	0.001	0.009	0.037	0.000	0.000	0.045	0.084

Current SAR Baseline to Current Estimate (TY $M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.084	0.011	-0.013	0.029	0.000	0.026	0.000	0.000	0.054	0.138

Initial SAR Baseline to Current SAR Baseline (TY $M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.037	-0.003	0.004	0.001	0.006	0.036	0.000	0.000	0.044	0.081

Current SAR Baseline to Current Estimate (TY $M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.081	0.011	-0.025	0.029	0.000	0.023	0.000	0.000	0.039	0.120

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	Mar 1998	Mar 1998	Jul 1998
Milestone C	N/A	Oct 2003	N/A	Mar 2003
IOC	N/A	Apr 2004	N/A	Dec 2005
Total Cost (TY $M)	N/A	1688.6	11848.9	6058.9
Total Quantity	N/A	43182	140239	43882
PAUC	N/A	0.039	0.084	0.138

The Milestone C and Initial Operational Capability (IOC) reported above reflect the Dual Purpose Improved Conventional Munition (DPICM) variant. Milestone C for Unitary variant was approved May 2007.

Cost Variance

Summary TY $M				
Item	**RDT&E**	**Procurement**	**MILCON**	**Total**
SAR Baseline (Production Estimate)	500.5	11348.4	--	11848.9
Previous Changes				
Economic	+9.6	+659.8	--	+669.4
Quantity	--	-8922.7	--	-8922.7
Schedule	+8.7	+1282.7	--	+1291.4
Engineering	--	--	--	--
Estimating	+147.5	+962.8	--	+1110.3
Other	--	--	--	--
Support	--	+11.0	--	+11.0
Subtotal	+165.8	-6006.4	--	-5840.6
Current Changes				
Economic	-4.1	-162.5	--	-166.6
Quantity	+190.1	--	--	+190.1
Schedule	--	-12.3	--	-12.3
Engineering	--	+10.8	--	+10.8
Estimating	-18.8	+50.3	--	+31.5
Other	--	--	--	--
Support	--	-2.9	--	-2.9
Subtotal	+167.2	-116.6	--	+50.6
Total Changes	+333.0	-6123.0	--	-5790.0
Current Estimate	833.5	5225.4	--	6058.9

Summary BY 2003 $M				
Item	**RDT&E**	**Procurement**	**MILCON**	**Total**
SAR Baseline (Production Estimate)	485.4	9294.8	--	9780.2
Previous Changes				
Economic	--	--	--	--
Quantity	--	-5929.7	--	-5929.7
Schedule	+8.2	+215.9	--	+224.1
Engineering	--	--	--	--
Estimating	+110.9	+522.1	--	+633.0
Other	--	--	--	--
Support	--	+10.1	--	+10.1
Subtotal	+119.1	-5181.6	--	-5062.5
Current Changes				
Economic	--	--	--	--
Quantity	+154.4	--	--	+154.4
Schedule	--	--	--	--
Engineering	--	+8.5	--	+8.5
Estimating	-16.3	+37.5	--	+21.2
Other	--	--	--	--
Support	--	-2.9	--	-2.9
Subtotal	+138.1	+43.1	--	+181.2
Total Changes	+257.2	-5138.5	--	-4881.3
Current Estimate	742.6	4156.3	--	4898.9

Previous Estimate: December 2007

RDT&E	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-4.1
Increased prototype quantity by 87, from 235 to 322, because of new requirement for the development of Alternative Warhead (AW) as directed by two November 2008 Acquisition Decision Memorandums (ADM) which (1) terminated Dual purpose Improved Conventional Munition (DPICM) and (2) began concept refinement of AW as materiel replacement for DPICM. (Quantity)	+154.4	+190.1
Adjustment for current and prior escalation. (Estimating)	+0.4	+0.5
Revised estimate due to Army budget changes. (Estimating)	-16.7	-19.3
RDT&E Subtotal	+138.1	+167.2

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-162.5
Aceleration of procurement buy profile due to FY08-FY10 Overseas Contingency Operation (OCO) buys. (Schedule)	0.0	-12.3
Correction to align support and flyaway. (Subtotal)	0.0	0.0
(Estimating)	(+0.1)	(+0.1)
(Support)	(-0.1)	(-0.1)
Adjustment for current and prior escalation. (Estimating)	+9.6	+11.3
Revised cost estimating methodology for rocket hardware due to First Unit Cost (T1) and slope changes resulting from the Unitary Full Rate Production Decision Review in December 2008. (Estimating)	+9.8	+16.4
Increase in Unitary tooling to reflect actuals, plus projected AW tooling. (Estimating)	+5.0	+5.9
New requirement for Transportation and Handling Monitoring System (THMS) to determine effects of transportation and handling on Rocket Pods. (Engineering)	+8.5	+10.8
Revised First Destination Transportation to reflect current annual buys and new transportation data. (Estimating)	+1.5	+1.8
Revised obsolescence methodology resulting from Unitary Full Rate Production Decision Review in December 2008. (Estimating)	+11.5	+14.8
Decrease in Other Support (For Interim Contractor Support [ICS]). (Support)	-2.8	-2.8
Procurement Subtotal	+43.1	-116.6

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: GMLRS Unitary SDD
Contractor: LMMFC-D
Contractor Location: Grand Prairie, TX 75051-0000
Contract Number: DAAHO1-03-C-0171
Contract Type: Cost Plus Fixed Fee (CPFF)
Award Date: September 29, 2003
Definitization Date: September 29, 2003

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
130.8	N/A	0	169.4	N/A	0	169.4	169.4

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2007)	+1.6	-1.6
Previous Cumulative Variances	+1.6	-1.6
Net Change	+0.0	+0.0

Cost and Schedule Variance Explanations

General Contract Variance Explanation

The Earned Value (EV) data used in this report is current through the end of the contractor's December 2007 accounting month. Any contract modifications or performance occurring after that date will not be reflected in the EV data. Due to recent changes in technical requirements for this program, the Performance Measurement Baseline was no longer considered to be adequate to provide valid performance data for this effort. Therefore the Government authorized the contractor to perform a formal reprogram by setting budget and earned value equal to actual cost, thus eliminating existing cost and schedule variances midway through the calendar year. This rebaseline resulted in a net change in the variances.

Notes

This contract is now over 90% complete and will no longer be reported. Increase in current target price compared to initial target price is due to contract modifications for production qualification test, 3-inch fuze effort, warhead competition, acceleration of program, and extended period of performance.

Contract Identification

Appropriation: Procurement
Contract Name: GMLRS LRIP III
Contractor: LMMFC-D
Contractor Location: Grand Prairie, TX 75051-0000
Contract Number: W31P4Q-05-C-0018
Contract Type: Firm Fixed Price (FFP), Cost Plus Fixed Fee (CPFF)
Award Date: January 31, 2005
Definitization Date: January 31, 2005

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
108.6	N/A	1014	170.6	N/A	1692	170.6	170.6

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP/CPFF) contract.

Notes

Since this is a production/ FFP contract, there is no single or particular reason for contract value changes over a period of time. The difference between the initial target number and the current number can either be option exercises, change order incorporations, negotiated reopener clauses, etc. Therefore these instruments can experience various up and down dollar changes over the years.

Contract Identification

Appropriation: Procurement
Contract Name: GMLRS FRP I
Contractor: LMMFC-D
Contractor Location: Grand Prairie, TX 75051-0000
Contract Number: W31P4Q-06-C-0002
Contract Type: Firm Fixed Price (FFP)
Award Date: December 28, 2005
Definitization Date: December 28, 2005

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
82.8	N/A	822	176.2	N/A	1772	176.2	176.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

Notes

GMLRS Full Rate Production (FRP) I Contract W31P4Q-06-C-0002 was initially awarded December 28, 2005, for 822 rockets (Army) and associated support.

Since this is a production/ FFP contract, there is no single or particular reason for contract value changes over a period of time. The difference between the initial target number and the current number can either be option exercises, change order incorporations, negotiated reopener clauses, etc. Therefore these instruments can experience various up and down dollar changes over the years.

Contract Identification

Appropriation: Procurement
Contract Name: GMLRS FRP II
Contractor: LMMFC-D
Contractor Location: Grand Prairie, TX 75051-0000
Contract Number: W31P4Q-07-C-0001
Contract Type: Firm Fixed Price (FFP)
Award Date: December 22, 2006
Definitization Date: December 22, 2006

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
78.0	N/A	702	253.9	N/A	2298	253.9	253.9

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

Notes

Since this is a production/ FFP contract, there is no single or particular reason for contract value changes over a period of time. The difference between the initial target number and the current number can either be option exercises, change order incorporations, negotiated reopener clauses, etc. Therefore these instruments can experience various up and down dollar changes over the years.

Contract Identification

Appropriation: Procurement
Contract Name: GMLRS FRP III
Contractor: LMMFC-D
Contractor Location: Grand Prairie, TX 75051-0000
Contract Number: W31P4Q-08-C-0021
Contract Type: Firm Fixed Price (FFP)
Award Date: December 27, 2007
Definitization Date: December 27, 2007

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
245.6	N/A	2184	444.6	N/A	4268	444.6	444.6

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

Notes

Since this is a production/ FFP contract, there is no single or particular reason for contract value changes over a period of time. The difference between the initial target number and the current number can either be option exercises, change order incorporations, negotiated reopener clauses, etc. Therefore these instruments can experience various up and down dollar changes over the years.

Contract Identification

Appropriation: Procurement
Contract Name: GMLRS LRIP II
Contractor: LMMFC-D
Contractor Location: Grand Prairie, TX 75051-0000
Contract Number: W31PUQ-04-C-0080
Contract Type: Firm Fixed Price (FFP)
Award Date: February 26, 2004
Definitization Date: February 26, 2004

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
91.9	N/A	846	90.6	N/A	699	90.6	90.6

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

General Contract Variance Explanation

The GMLRS LRIP II contract W31P4Q-04-C-0080 contains CLINs that are CPFF. However, the majority of this contract is FFP. CPFF CLINs are less than $20M, therefore, Earned Value data is not required. The current contract price for LRIP II decreased due to change order definitizations.

Notes

Since this is a production/ FFP contract, there is no single or particular reason for contract value changes over a period of time. The difference between the initial number and the current number can either be option exercises, change order incorporations, negotiated reopener clauses, etc. Therefore these instruments can experience various up and down dollar changes over the years.

Deliveries and Expenditures

Deliveries				
Delivered to Date	**Planned to Date**	**Actual to Date**	**Total Quantity**	**Percent Delivered**
Development	322	235	322	72.98%
Production	6438	6438	43560	14.78%
Total Program Quantity Delivered	6760	6673	43882	15.21%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	6058.9	Years Appropriated	13
Expended to Date	1390.7	Percent Years Appropriated	52.00%
Percent Expended	22.95%	Appropriated to Date	2090.3
Total Funding Years	25	Percent Appropriated	34.50%

Operating and Support Cost

Assumptions and Ground Rules

The unit of measure for tracking Operating and Support (O&S) costs is the Rocket Pod.

The service life of the GMLRS system is ten (10) years.

TOTAL ROCKET QTY 43560
TOTAL POD QTY 7260

Cost Estimate Reference:
None

Sustainment Strategy:
None
Antecedent Information:
None

Unitized O&S Costs BY2003 $K		
Cost Element	**GMLRS Avg Annual Cost Per Rocket Pod**	**No GMLRS Antecedent (Antecedent)**
Mission Pay & Allowance	0.100	--
Unit Level Consumption	0.000	--
Intermediate Maintenance	0.000	--
Depot Maintenance	1.000	--
Contractor Support	0.300	--
Sustaining Support	0.600	--
Indirect	0.500	--
Other	--	--
Total	2.500	--

Unitized Cost Comments:
None

Item	Total O&S Cost $M			
	GMLRS			No GMLRS Antecedent (Antecedent)
	Current Production APB Objective/Threshold		Current Estimate	
Base Year	160.7	176.8	**184.7**[1]	N/A
Then Year	253.9	N/A	269.8	N/A

[1] *APB O&S Cost Breach*

Total O&S Cost Comment
None

Disposal Estimate Details

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2003 $M):